

**CALIFORNIA COASTAL COMMISSION**

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**W19a**

Filed: 5/29/2003  
 49th day: 7/17/2003  
 180<sup>th</sup> day: 11/25/2003  
 Staff: D.Carl  
 Staff report prepared: 5/29/2003  
 Hearing date: 6/11/2003  
 Hearing item number: W19a

**COASTAL DEVELOPMENT PERMIT APPLICATION**

**Application number.....3-02-091, Pelican Point Riverwall**

**Applicant.....**Pelican Point Homeowners Association

**Project location.....***Zmudowski State Beach* at the mouth of the Pajaro River, at the downcoast end of the Pajaro Dunes residential community located at the confluence of the Pajaro River, Watsonville Slough, and the Monterey Bay in the southernmost reach of unincorporated Santa Cruz County.

**Project description.....**Install a driven sheet-pile metal wall along roughly 680 linear feet of the Pajaro River and Watsonville Slough sides of the Pelican Point condominium portion of the Pajaro Dunes residential development.

**File documents.....**Coastal Commission Coastal Development Permit (CDP) Files 3-81-105 and A-3-SCO-84-059, and Emergency Permit File 3-91-028-G; Santa Cruz County CDP Files 87-0644 and 99-0620; Santa Cruz County Certified Local Coastal Program (LCP); California Coastal Commission Monterey Bay ReCAP.

**Staff recommendation ....Approval with Conditions**

**Summary of Staff Recommendation:** The Applicant proposes to install a driven sheetpile wall immediately adjacent to an existing timber pile wall within the mouth of the Pajaro River and Watsonville Slough in south Santa Cruz County commencing in fall/winter 2003. The wall is intended to prevent potential river scour events from removing the inland fill in which the piers supporting the pre-Coastal Act Pelican Point condominium structures are embedded; and thus ultimately to protect the condo structures themselves. The sheetpile wall construction proposed would permanently occupy and fill a significant environmentally sensitive habitat area (ESHA) located within the State-owned *Zmudowski State Beach* unit within a State-designated Natural Preserve area, and would temporarily degrade the significant ESHA resources in and adjacent to the project area during construction. The project as proposed is fundamentally inconsistent with the Coastal Act's ESHA and wetlands policies, and raises additional core Coastal Act issues regarding public access, public viewshed, long-term stability, and shoreline processes.

However, there are no feasible alternative projects that can protect the existing threatened structures at this location absent some form of armoring repair. Relocation would be prohibitively expensive, and "soft" options like aggressive vegetation planting and drainage controls aren't applicable to this case where the development is entirely founded on dune sands and an existing pre-Coastal Act pile wall has



**California Coastal Commission**  
 June Meeting in Long Beach

Staff: D.Carl Approved by:

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already hardened the river's edge. The sheetpiles proposed would occupy a smaller footprint than either rip-rap or vertical concrete walls of some sort, and are more responsive to the loose dune environment than other forms of armor. Thus, a replacement sheetpile wall of some sort is the most appropriate repair in this case.

However, options for feasible wall alignments that avoid ESHA are limited due to the presence of the existing timber pile wall, rip-rap on both sides of it, the close proximity of the condo buildings themselves to the river, and the exacting tolerances necessary for driving the king piles and interlocking sheetpiles to 65 feet below grade. Options are further limited because there is only a 3-month window during which construction would be allowed in order to avoid listed species habitat needs, and any options that may take longer than 3 months increase the impact on ESHA because multiple construction seasons would be required. In this case, wall alignment alternatives that avoid ESHA do not appear feasible.

In sum, although the project is inconsistent with the general habitat resource protection policies of the Act, the more specific policy of Coastal Act section 30235, which requires that the Commission approve this project, overrides in this case, where there are no other feasible alternatives to protect the existing development that would avoid ESHA.

That said, any unavoidable impacts must be mitigated. The Applicant has proposed an extensive mitigation package that includes: restoration of the construction area following construction; restoration of approximately 2 acres of Watsonville Slough uplands at the mouth of the slough (see exhibit E); restoration the dune area inland of the new wall in and around the condominiums; funding for the long-term management of all restored areas; \$10,000 to the Point Reyes Bird Observatory (PRBO) to further their plover recovery efforts in the immediate vicinity; preparation of a public access feasibility analysis; deeding roughly 2 acres of slough and dune rivermouth lands to the State in exchange for the land underlying the proposed wall (and a portion of the existing revetment; a roughly 5:1 exchange in favor of the State); limiting absolute construction duration by implementing a 7-day work week; and preparation of a restoration plan for the last mile of Watsonville Slough from Beach Road to the Pajaro River.

Staff has spent considerable time evaluating project options and permutations in relation to ESHA impacts and feasibility issues. On balance and based on the mitigation package proposed by the Applicant (as implemented by special condition), the proposed project is the most Coastal Act consistent feasible project that can be expected in this case. Although not optimum for ESHA, the difficult site conditions and the pre-Coastal Act development at this location conspire to severely limit project options in this case; all options are further clouded by potential construction difficulties whose ramifications won't be completely understood until construction begins. The feasibility of an inland alternative is ultimately too uncertain to commit the project to this alignment, and to potentially result in increased construction duration and ESHA impacts within an environment that shouldn't be subjected to this type of development a day longer than necessary. Based on the mitigation package proposed, and to best protect habitat in light of the pre-Coastal Act development at Pelican Point that (per the Coastal Act) requires Commission approval of this project, **Staff recommends approval with conditions.**



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## I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

**Motion.** I move that the Commission approve Coastal Development Permit Number 3-02-091 pursuant to the staff recommendation.

**Staff Recommendation of Approval.** Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**Resolution to Approve a Coastal Development Permit.** The Commission hereby approves the coastal development permit on the grounds that the development as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

## II. Conditions of Approval

### A. Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the



subject property to the terms and conditions.

## B. Special Conditions

1. **Revised Sheetpile Wall Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit Revised Sheetpile Wall Plans to the Executive Director for review and approval. The Revised Sheetpile Wall Plans shall be substantially in conformance with the plans submitted to the Coastal Commission (*Pelican Riverwall Repair Plan* by Haro, Kasunich and Associates Inc. dated received in the Coastal Commission's Central Coast District Office January 25, 2002) but shall show the following changes to the project:
  - (a) **Inland Wall at Intersection of Watsonville Slough and the Pajaro River.** That portion of the sheetpile wall located along the eastern side of condominium building D shall be located inland of the existing timber pile wall in the alignment identified on page 1 of exhibit C.
  - (b) **Removal of Structures on the Pajaro River/Watsonville Slough Side of the Sheetpile Wall.** The Revised Sheetpile Wall Plans shall provide for the removal of the existing wood pier and lagging wall, and the removal of all rip-rap, sand bags, and other associated structures from the Pajaro River/Watsonville Slough side of the sheetpile wall location. The Revised Sheetpile Wall Plans shall indicate that rip-rap and sand bags may be used to back fill on the inland (condominium) side of the sheetpile wall, but that all other structures removed, including any rip-rap or sand bags not used for back fill purposes, shall be removed off-site and appropriately disposed of.
  - (c) **Planter and Path Detail.** The Revised Sheetpile Wall Plans shall include plan sheets detailing the specifications of the planter boxes and paths substantially in conformance with the detail sheets provided separately (see page 3 of exhibit C).
  - (d) **Access Prohibited.** The Revised Sheetpile Wall Plans shall not provide for access (including but not limited to pathways or stairways) to cross over the sheetpile wall between the condominiums and the Pajaro River/Watsonville Slough side of the sheetpile wall location. Access from the Pelican Point condominium side of the sheetpile wall to the Pajaro River/Watsonville Slough side of the sheetpile wall shall be limited to the existing stairway located at the northwestern edge of the sheetpile wall.
  - (e) **Construction Time Frame.** The Revised Sheetpile Wall Plans shall indicate that construction activities shall be limited to between September 15, 2003 and December 15, 2003 inclusive. All construction debris and materials shall be removed in their entirety from the river/slough side the existing wood pier and lagging wall and/or the sheetpile wall by December 15, 2003.
  - (f) **Notification.** The Revised Sheetpile Wall Plans shall indicate that the Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 days prior to commencement of any construction activities, and immediately after all construction debris and materials have been removed in their entirety from the beach (on or before December 15, 2003).



- (g) **Construction Methods and Schedule.** The Revised Sheetpile Wall Plans shall specify all construction schedules (including criteria that will be used to determine when work days per week shall be increased from 5 to 6 or 7), all phasing, and all construction methods to be used, including but not limited to all methods to be used to stabilize condominium buildings B, C, and D during construction, and all methods to be used to close down the construction site should circumstances (such as weather and/or construction conditions) dictate.

The Permittee shall undertake development in accordance with the approved Revised Sheetpile Wall Plans. Any proposed changes to the approved Revised Sheetpile Wall Plans shall be reported to the Executive Director. No changes to the approved Revised Sheetpile Wall Plans shall occur without a Commission amendment to coastal development permit 3-02-091 unless the Executive Director determines that no amendment is necessary.

2. **Revised Restoration Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit a Revised Restoration Plan to the Executive Director for review and approval. The Revised Restoration Plan shall be substantially in conformance with the revegetation plans submitted to the Coastal Commission (*Revegetation Plan for the Pelican Riverwall Repair Project* by Elkhorn Native Plant Nursery dated January 11, 2002) but shall show the following changes to the Plan:

- (a) **Expanded Restoration Area Adjacent to Sheetpile Wall.** The Revised Restoration Plan shall provide for high quality dune and slough restoration of all areas located on the Pajaro River/Watsonville Slough side of the revised sheetpile wall location (identified in the approved Revised Sheetpile Wall Plans per special condition 1 above); see exhibit E for graphic depiction of this area.
- (b) **Expanded Restoration Area Adjacent to Watsonville Slough.** The Revised Restoration Plan shall provide for high quality wetland/upland restoration and habitat enhancement in the area north of the sheetpile wall as shown on exhibit E. All invasive non-natives shall be removed from this area, and significant trees shall be retained.
- (c) **Restoration Area Inland of Wall.** The Revised Restoration Plan shall provide additional detail on the non-native and invasive plant removal, and native dune plant planting, to be done inland of the sheetpile wall location (i.e., on the condominium side).
- (d) **Coastal Strand.** The coastal strand restoration species shall be planted as plugs, and not with a seed mix to ensure a higher level of success for this restoration component.
- (e) **Cascading Vegetation.** The planter box plant species mix previously specified for the upper planter box area (and intended to cascade over the top of the wall towards the river/slough) shall be supplemented with appropriate native species that are known to provide trailing vegetation capable of cascading a minimum of five feet on the river/slough side of the sheetpile wall. Such plantings shall be kept in good growing condition and replaced as necessary to maintain the minimum five feet of screening over the life of the project.



- (f) **Reference Plots.** High quality reference plots shall be identified, and baseline conditions within them provided, for each of the different type of plant communities being restored pursuant to the plan. The reference plots shall then be used as the control for the success criteria established.
- (g) **Feral Cats.** Measures that will be taken to reduce impacts of feral cats and/or domesticated pets on snowy plovers shall be identified.
- (h) **Interim Success Criteria.** Interim success criteria for years 1 through 4 shall be established based upon making appropriate progress towards achieving the year 5 success criteria already identified. Years, as used in this context, shall be measured from the date that initial planting is completed.
- (i) **Signage and Trails.** The Plan shall provide for the placement of informative signs inland of the restoration areas (i.e., on the condominium side of the restoration areas) that identify the restoration areas, provide information about the restoration areas, prohibit domestic animals, and minimize pedestrian access through the restoration areas. A formal interpretive display with directive information shall be placed at the existing stairway access at the western edge of the sheetpile wall. At a minimum, the sign at the stairway shall include directions to avoid snowy plover and other rivermouth habitat located inland of the stairway location. All sign text shall be identified. Any pedestrian access trails shall be identified in the Plan and shall be: limited to the area north of the sheetpile wall (and prohibited otherwise); limited to those absolutely necessary for providing necessary through access; minimized in width and length; and sensitively designed (i.e., boardwalks).
- (j) **Monitoring.** The monitoring section of the Plan shall be supplemented to indicate as follows:

All restoration planting areas shall be monitored and maintained by a qualified coastal dune/wetland biologist to achieve the required minimum performance standards. Monitoring of the restoration shall include both quantitative and qualitative evaluation. At the least, quantitative assessment shall record plant density and relative composition, native plant cover percentages, and the general amount of exotic vegetation remaining. At the least, qualitative assessment shall describe the general health and vitality of the restored vegetation.

On a quarterly basis (as calculated from the initial planting complete date), all restoration areas shall be inspected and monitored by a qualified coastal dune/wetland biologist. Such quarterly monitoring is meant to be an overview of site restoration conditions within which any minor remedial maintenance actions are to be initiated as necessary to achieve required minimum performance standards. All quarterly monitoring observations and maintenance actions shall be recorded. Photo documentation shall be provided.

On an annual basis (as calculated from the initial planting complete date), the site shall be rigorously inspected and monitored by a qualified coastal biologist. Such annual monitoring meant to provide an exacting basis for measuring compliance with the required minimum performance standards, and implementing appropriate maintenance response as necessary. Monitoring results shall be compared against the identified reference plots to measure success.



- (k) Monitoring Reports.** The reporting section of the Plan shall be supplemented to indicate as follows:

Reports of all restoration monitoring (that clearly describe all quarterly and annual monitoring, maintenance, and remedial activities and observations) shall be prepared annually by a qualified coastal dune/wetland biologist. The annual reports shall be submitted no later than September 15th of each year for the review and approval of the Executive Director. The annual reports shall be submitted until it has been confirmed in writing by of the Executive Director that all success criteria have been achieved; at a minimum, at least five such annual reports shall be submitted.

If any annual report should identify a failure to meet any of the minimum success criteria, or a failure to meet any other standards consistent with current professional dune and slough restoration standards, the report shall include appropriate recommendations for remedial measures for achieving these minimum standards. Each approved monitoring report shall provide for a list of the remedial measures, if any, that are to be implemented and a timeline for their implementation. Such remedial measures shall be undertaken as directed by the approved monitoring report. All reports shall be signed and dated.

- (l) Maintenance.** The Plan shall make clear that all maintenance shall be conducted by a qualified coastal dune/wetland restoration specialist.
- (m) Timing and Phasing.** The Plan may provide for phased restoration as different components of the sheetpile wall are installed. Such phasing shall follow the order in which the wall is to be installed (i.e., working from the Watsonville Slough area towards the Monterey Bay). In addition, restoration of the area adjacent to Watsonville Slough north of the construction area (as identified above in this condition), can commence concurrently with construction of the sheetpile wall because it is located out of the limits of work for the sheetpile wall. At a minimum, the restoration of the area adjacent to Watsonville Slough north of the construction area shall be initially planted prior to December 15, 2003. At a minimum, any area for which the sheetpile wall has been installed by December 15, 2003 shall have both the area on the river/slough side of such completed sheetpile wall section initially planted prior to December 15, 2003, and the area in the planter boxes initially planted prior to December 15, 2003.
- (n) As-Built Restoration Plans and Planting Complete Date.** The Plan shall indicate that As-Built Restoration Plans, describing all initial restoration planting measures undertaken and their location, shall be submitted for the Executive Director's review and written approval within three (3) months of completion of the approved Sheetpile Wall. The As-Built Restoration Plans shall identify the date when all such plantings were completed ("initial planting complete date"); said date to be used to determine time-frames for the required monitoring, maintenance and reporting parameters

The Permittee shall undertake development in accordance with the approved Revised Restoration Plan. Any proposed changes to the approved Revised Restoration Plan shall be reported to the Executive Director. No changes to the approved Revised Restoration Plan shall occur without a



Commission amendment to coastal development permit 3-02-091 unless the Executive Director determines that no amendment is necessary.

3. **Land Exchange.** BY JUNE 11, 2004, the Permittee shall submit written evidence to the Executive Director for review and approval that shows that any land owned by the Permittee in the Pajaro River rivermouth and/or Watsonville Slough area (roughly depicted on page 4 of exhibit B as “To the State (SLC)”) has been deeded to the State Lands Commission in exchange for the land owned by the State Lands Commission that is located on the condominium side of the Revised Sheetpile Wall location (per special condition 1) (roughly depicted on page 4 of exhibit B as “To the Pelican Point Homeowners”).
4. **Conservation Easement.** BY JUNE 11, 2004, the Permittee shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate an easement to a political subdivision, public agency or private association approved by the Executive Director for the protection of environmentally sensitive Pajaro River and Watsonville Slough habitat (Conservation Easement). The Conservation Easement shall apply to any portion of the restoration area shown on exhibit E as “Upland Slough Restoration” that is located on land owned by the Permittee at the conclusion of the land exchange required by special condition 3 (Conservation Easement Area). At the discretion of the Permittee, the Conservation Easement may alternatively provide for the outright dedication of fee ownership for the Conservation Easement Area, either in whole or in part. The recorded document shall include a legal description and a site plan of: (a) the Conservation Easement Area, with any sub-areas within this larger area designated for easement versus outright dedication likewise identified; and (b) the Permittee’s parcels involved (APNs 052-343-10, 052-344-10, 052-345-05, 052-342-05, and 052-331-07). The recorded document shall indicate that no development, as defined in Section 30106 (“Development”) of the Coastal Act, shall occur in the Conservation Easement Area except for habitat enhancement, restoration, and maintenance activities specified in the restoration plan (and any subsequent remedial actions required by the approved monitoring reports) approved pursuant to coastal development permit 3-02-091 (see special condition 2) and/or future restoration plans that may be approved by the Coastal Commission through amendment to coastal development permit 3-02-091 or by separate coastal development permit.

The offer to dedicate a Conservation Easement shall be recorded free of prior liens and encumbrances which the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording.

5. **Watsonville Slough Restoration Plan.** BY DECEMBER 11, 2003, the Permittee shall submit a Watsonville Slough Restoration Plan (Plan) to the Executive Director for review and approval. The Plan shall be prepared under direction of a qualified wetland biologist consistent with the scoping outline prepared by Biotic Resources Group and dated May 28, 2003 (see pages 5 and 6 of exhibit B), and consistent with the parameters applicable to the section of Watsonville Slough between Beach Road and the Pajaro River identified in the *Final Watsonville Slough Watershed Resource Conservation & Enhancement Plan* (dated January 2003) as supplemented by this condition and by



current professional wetland restoration standards. The Plan shall include:

- (a) **Baseline.** A baseline ecological assessment of the restoration area, including but not limited to, assessment of the biological and physical characteristics for the area.
- (b) **Reference Plots.** High quality reference plots shall be identified, and baseline conditions within them provided. The reference plots shall then be used as the control for the success criteria established.
- (c) **Performance Standards and Success Criteria.** Measurable performance standards and success criteria shall be established, including, at a minimum, standards applicable to vegetation coverage and vegetation health for any areas to be planted, and non-native plant coverage. Each performance standard shall identify: (1) the minimum standard to be achieved for each of the first 4 years after initial implementation (e.g., minimum of 10% native coverage after 1<sup>st</sup> year, 20% after 2<sup>nd</sup>, 30% after 3<sup>rd</sup>, etc.); (2) the condition or level that defines success after 5 years (e.g., minimum 50% native coverage after 5 years); and (3) the method to be used to evaluate conformance with each standard (e.g., random samples within the restoration area will be evaluated annually and compared against similar random samples within the reference plot to determine the percent of native coverage). Success for each performance standard must be sustained over the life of project.
- (d) **Implementation.** All steps to be taken to implement the Plan and achieve success with the performance standards over the short term (i.e., up to year five) and long term (i.e., year five and beyond) including, but not limited to, details regarding: native seed and plant material collection, propagation, and/or acquisition; non-native species eradication methods; planting methods and species lists; maintenance schedules; and overall management measures. Implementation shall include a site plan that identifies specific areas where non-native vegetation is to be removed, and where native vegetation is to be planted.
- (e) **Monitoring.** All restoration areas shall be monitored and maintained by a qualified wetland biologist to achieve the required minimum performance standards. Monitoring of the restoration shall include both quantitative and qualitative evaluation. At the least, quantitative assessment shall record plant density and relative composition, native plant cover percentages, and the general amount of exotic vegetation remaining. At the least, qualitative assessment shall describe the general health and vitality of the restored vegetation.

On a quarterly basis (as calculated from the initial planting complete date), all restoration areas shall be inspected and monitored by a qualified wetland biologist. Such quarterly monitoring is meant to be an overview of site restoration conditions within which any minor remedial maintenance actions are to be initiated as necessary to achieve required minimum performance standards. All quarterly monitoring observations and maintenance actions shall be recorded. Photo documentation shall be provided.

On an annual basis (as calculated from the initial planting complete date), the site shall be



rigorously inspected and monitored by a qualified coastal biologist. Such annual monitoring meant to provide an exacting basis for measuring compliance with the required minimum performance standards, and implementing appropriate maintenance response as necessary. Monitoring results shall be compared against the identified reference plots to measure success.

- (f) **Monitoring Reports.** Reports of all restoration monitoring (that clearly describe all quarterly and annual monitoring, maintenance, and remedial activities and observations) shall be prepared annually by a qualified coastal dune/wetland biologist. The annual reports shall be submitted no later than September 15th of each year for the review and approval of the Executive Director. The annual reports shall be submitted until it has been confirmed in writing by of the Executive Director that all success criteria have been achieved; at a minimum, at least five such annual reports shall be submitted.

If any annual report should identify a failure to meet any of the minimum success criteria, or a failure to meet any other standards consistent with current professional wetland restoration standards, the report shall include appropriate recommendations for remedial measures for achieving these minimum standards. Each approved monitoring report shall provide for a list of the remedial measures, if any, that are to be implemented and a timeline for their implementation. Such remedial measures shall be undertaken as directed by the approved monitoring report. All reports shall be signed and dated.

- (g) **Maintenance.** The Plan shall make clear that all maintenance shall be conducted by a qualified wetland restoration specialist.
- (h) **As-Built Restoration Plans and Planting Complete Date.** The Plan shall indicate that As-Built Restoration Plans, describing all initial restoration planting measures undertaken and their location, shall be submitted for the Executive Director's review and written approval within three (3) months of initial planting completion. The As-Built Restoration Plans shall identify the date when all such plantings were completed ("initial planting complete date"); said date to be used to determine time-frames for the required monitoring, maintenance and reporting parameters.
- (i) **Funding Sources.** An analysis of potential sources that could be used to implement the Plan shall be included.
- (j) **Property Owner Consent.** For all property for which restoration is prescribed, and/or for all property for which site access is necessary to reach the restoration areas, written evidence of the property owners consent for Plan implementation shall be provided.

Implementation of the Plan shall require a separate coastal development permit.

6. **Public Access Feasibility Study.** BY DECEMBER 11, 2003, the Permittee shall submit a Public Access Feasibility Study (Study) to the Executive Director for review and approval. The Study shall be consistent with the preliminary study outline prepared by the Permittee (see page 7 of exhibit B) as supplemented by this condition. The Study shall evaluate measures that could be taken to provide



public access from the southwestern end of the Pajaro River levee (where it intersects Watsonville Slough) continuously through to Beach Road. At a minimum, the Study shall include:

- (a) **Physical Improvements.** An analysis of physical improvements that could be made (such as pathways), locations of such improvements (e.g., the pathway could be located on top of the agricultural levee), details of their characteristics (e.g., the pathway could be 12-foot wide and composed of decomposed granite), and physical impediments to installing such improvements.
- (b) **Property Ownership Issues.** An analysis of property ownership issues, measures that could be taken to establish a legal right of access for the public (e.g., purchase of land or easement), and legal impediments to public access.
- (c) **Recommendations.** A list of recommendations to provide access, including identification of any issue areas that require further evaluation.
- (d) **Funding.** An analysis of potential funding sources that could be used to further evaluate measures that could be taken to provide public access (if necessary), or to provide public access improvements, consistent with Study recommendations
- (e) **Property Owner Consent.** To the extent feasible, the Study shall include written evidence of consent to provide public access from any affected landowners..

Implementation of the Study shall require a separate coastal development permit.

- 7. **Snowy Plover Mitigation.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit written evidence to the Executive Director showing that the Permittee has given \$10,000 to the Point Reyes Bird Observatory, where the \$10,000 is to be used to further snowy plover recovery efforts in the Pajaro River rivermouth area.
- 8. **As-Built Plans.** WITHIN THREE (3) MONTHS OF COMPLETION OF SHEETPILE WALL CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval As-Built Plans of the sheetpile wall structure that include permanent surveyed benchmarks for use in future monitoring efforts described in relation to the National Geodetic Vertical Datum (NGVD) as follows: (a) one or more benchmarks shall be located inland of the as-built sheetpile wall; and (b) benchmarks shall be located on the river/slough edge of the top of the as-built sheetpile wall at each location where the wall changes direction in site plan view and at either end of the wall. The As-Built Plans shall identify the extent of the as-built sheetpile wall structure in site plan and cross-section views and shall identify all condominium, path and road structures within the immediate vicinity (i.e., roughly within 150 yards of the sheetpile wall). The As-Built Plans shall indicate vertical and horizontal reference distances from the inland benchmark(s) to the as-built sheetpile wall benchmarks. The survey points shall be identified through permanent markers, benchmarks, survey position, written description, et cetera to allow measurements to be taken at the same location in order to compare information between years.

The As-Built Plans shall be submitted with certification by a licensed geotechnical engineer,



acceptable to the Executive Director, verifying that the sheetpile wall structure has been constructed in conformance with the approved Revised Sheetpile Wall Plans described by special condition 1 above.

**9. Monitoring.** The Permittee shall ensure that the condition and performance of the as-built sheetpile wall is regularly monitored by a licensed geotechnical engineer. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact its future performance, and identify any structural damage requiring repair to maintain the as-built sheetpile wall profile. At a minimum, the Permittee shall submit to the Executive Director for review and approval a monitoring report once every five years by May 1<sup>st</sup> (with the first report due May 1, 2008) for as long as the sheetpile wall exists at this site. Each such report shall be prepared by a licensed geotechnical engineer and shall cover the monitoring evaluation described in this condition above. Each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the as-built sheetpile wall. Such report recommendations shall not be carried out until a coastal development permit or permit amendment has been issued that authorizes such measures, unless the Executive Director determines that no coastal development permit or permit amendment is necessary.

**10. Shoreline Development Stipulations.** By acceptance of this permit, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that:

**(a) No Further Encroachment.** Any future response to coastal hazards (including but not limited to coastal hazards associated with shoreline erosion, river erosion and scour, wave attack, etc.) requiring the placement of any type of protective structure, including, but not limited to, modifications to the as-built sheetpile wall, shall be constructed inland (i.e., on the condominium side) of the river/slough edge of the as-built sheetpile wall. An As-Built Sheetpile Wall Plan has been approved pursuant to coastal development permit 3-02-091 that defines the river/slough edge of the as-built sheetpile wall. The approval of coastal development permit 3-02-091 does not obviate the need to obtain future permits for any such future response to coastal hazards.

**(b) Sheetpile Wall Screening.** That portion of the sheetpile wall that is exposed above sand/slough levels on the river/slough side of the sheetpile wall shall be screened from view (as seen from the river/slough side) by a dense cascading screen of native vegetation. At a minimum, such vegetative screening shall cover the top five feet of the sheetpile wall. A Restoration Plan has been approved pursuant to coastal development permit 3-02-091 that specifies the native planting palette and the required vegetation maintenance parameters for the vegetative screening. All native vegetative screen plantings shall be maintained in good growing conditions and shall be replaced as necessary to maintain the required screen over the life of the project.

**(c) Sheetpile Wall Maintenance.** It is the Permittee's responsibility to maintain the as-built sheetpile wall and vegetative screening in a structurally sound manner and its approved state. An As-Built Sheetpile Wall Plan has been approved pursuant to coastal development permit 3-02-091 that defines the profile of the as-built sheetpile wall. The approval of coastal development permit 3-02-091 does not obviate the need to obtain future permits for any future maintenance and/or repair



episodes. The Permittee agrees to apply for a coastal development permit, and any and all other permits required, for any proposed future maintenance and/or repair episodes.

**(d) Restoration Area Maintenance.** A Restoration Plan has been approved pursuant to coastal development permit 3-02-091 that includes measurable minimum success criteria for restoration areas (located on both sides of the sheetpile wall, and an area north of the sheetpile wall), and it is the Permittee's responsibility to maintain the restoration areas pursuant to the minimum success criteria identified in the Restoration Plan over the life of the residential project.

**(e) Materials Removal.** The Permittee shall immediately remove all materials that may fall or otherwise move from the area inland (i.e., on the condominium side) of the sheetpile wall into the area on the river/slough side of the sheetpile wall. Such materials include, but are not limited to, sand bags, rip-rap boulders, and debris.

**(f) Assumption of Risk, Waiver of Liability and Indemnity Agreement.** The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from coastal erosion, river erosion and scour, slough erosion and scour, wave and storm events, dune and other geologic instability, and the interaction of same; (ii) to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

**11. Other Agency Review.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project as approved by coastal development permit 3-02-091 have been granted by the: (1) United States Army Corps of Engineers; (2) California Department of Fish and Game; and (3) Monterey Bay National Marine Sanctuary.

**12. Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights which may exist on the property. The Permittee shall not use this permit as evidence of a waiver of any public rights which may exist on the property.

**13. Project Completion.** The approved sheetpile wall (pursuant to special condition 1 above) and all required restoration (pursuant to special condition 2 above) shall be completely installed by December 15, 2003. Any deviation from the December 15, 2003 completion deadline thus established shall require an amendment to coastal development permit 3-02-091 unless the Executive Director determines that no amendment is necessary.



**14. Deed Restriction.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

### III. Findings and Declarations

The Commission finds and declares as follows:

#### A. Project Location and Background

The proposed project is located in southern Santa Cruz County where the Pajaro River meets the Monterey Bay. The upcoast edge of the Pajaro River rivermouth was artificially fixed at this location by the construction of the Pelican Point portion of the larger Pajaro Dunes residential development prior to the coastal development permitting requirements of Proposition 20 (the Coastal Initiative) and the Coastal Act. The Pajaro Dunes/Pelican Point residential development occupies the former sand spit area located between Watsonville Slough (running parallel to the ocean) and the Monterey Bay, with the Pelican Point condominiums themselves defined by a series of 3-story and 4-story buildings supported on piles at the River's edge (see photos in exhibit A). The Pajaro Dunes/Pelican Point residential development is isolated from other more inland urban development (the nearest being the City of Watsonville roughly 3 miles inland) and is surrounded inland as well as up and downcoast by vast stretches of agricultural fields.

The project would take place in the sandy Pajaro River rivermouth area (running perpendicular from the Monterey Bay back inland to Watsonville Slough) and in Watsonville Slough proper (where it enters the Pajaro River). The project would take place within the *Zmudowski State Beach* State Park unit on lands owned by the California State Lands Commission (other than a small portion of the proposed project area, where Watsonville Slough meets the Pajaro River, that is held in fee-title by the Applicant). See exhibit A for project location.

The boundary between the Pelican Point condominiums and the Pajaro River proper is demarcated by an existing wooden pile and lagging wall that was initially installed when the condominium structures were constructed in the late 1960s and early 1970s. This existing wooden pile wall extends inland



perpendicular to the Bay from the southeastern end of the Pajaro Dunes revetment (a large revetment that runs along the shoreline length of the Pajaro Dunes development for roughly 1 mile, terminating at the mouth of the River) to a point roughly 650 feet inland with a return extending back upcoast along the edge of Watsonville Slough. The wooden pile wall includes tie backs to “dead man” pilings located under the condominium buildings themselves, and a substantial concrete whaler beam extending along the river side. The existing wooden pile wall is located along the Pelican Point property boundary. See exhibits A and C for location of the existing pile wall.

The Applicant indicates that a small amount of rip-rap was placed along the full linear extent of the inland side of the existing wooden pile, and along roughly 100 feet of the “headland” of the wall along Watsonville Slough when the wall was initially constructed. Since that time, the existing wall has been damaged repeatedly due to river/wave scour and due to the 1989 Loma Prieta earthquake. The Applicant indicates that additional rip-rap and sandbags (roughly 1,300 additional cubic yards) have been placed on multiple occasions, including at least five times since 1982, on both the river and inland sides of the wall in response to such events (see the Applicant’s estimates of rock/sand bag locations in exhibit D). The Commission has been unable to locate coastal development permits authorizing such rip-rap and sand bag installation.<sup>1</sup> In addition to the rock and sand bags placed, the concrete whaler beam was installed following the Loma Prieta earthquake, with the original tie backs then attached to the whaler beam and repaired as necessary, under emergency permit 3-91-028-G; this temporary emergency work was never recognized by the required follow-up CDP.

Thus, due to pre-Proposition 20/pre-Coastal Act development (i.e., the condominiums, wooden pile wall, and related inland development), and due to shoreline armoring that appears to have been placed without required CDPs, the existing conditions at the site are as follows:

- There exists a wooden pile and lagging wall with a reinforced concrete whaler beam extending inland from an ocean-fronting revetment (not the subject of this application) perpendicular to the Monterey Bay through to the Watsonville Slough (with a wall “return” extending back upcoast along the slough itself). The existing wall includes tiebacks that are connected inland to buried piles located under the inland condominium units. The existing wall is supplemented by rip-rap and sandbags along both its inland and river sides. The existing piles have rotated in places (i.e., their base has shifted towards the condos, and their tops towards the river) and thus the base of the piles is less than 5 feet or so from the condo buildings themselves in some locations nearest the condos. The existing wall is located along the Applicant’s property line and is the dividing point between the inland urban development and the resources of Pajaro River, Watsonville Slough, and *Zmudowski State Beach*. According to the Applicant’s geotechnical reports, the original purpose of the existing wall was to prevent the Pajaro River from eroding into the building area, and to support the fill that defines the inland condominium development area.
- There exists a large condominium development with 87 units spread over seven separate 3-story and 4-story structures. These condominium units are at the downcoast end of the overall larger Pajaro

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<sup>1</sup> See “Alleged Violation” finding below.



Dunes residential area that extends roughly a mile upcoast from the Pajaro River between the Monterey Bay and Watsonville Slough. The condominium structures are supported atop pilings embedded in the beach sands. According to the Applicant's geotechnical reports, the pilings on which the condominiums are supported were meant to function independent of the wooden pile and lagging wall running along the river.

See exhibit A for photos of the project area.

## B. Project Description

The Applicant proposes to install a driven sheetpile wall supported by steel I-beam "king piles" on the river side of the existing wooden wall. The 3½-foot wide I-beams would be driven approximately 65 feet below existing grade (roughly -53 feet NGVD), at a 6-foot on center spacing, with 2-foot wide interlocking and angled sheetpiles driven roughly 35 feet below existing grade (or roughly -23 NGVD). The face of the sheetpile wall would be roughly 5 feet further into the rivermouth/sandy beach area than the existing wooden pile and lagging wall. The wall would run linearly roughly 680 feet, with approximately 80 feet of that for a new return section extending upcoast along the Watsonville Slough "headland" where the Slough meets the River. The top of the proposed sheetpile wall would be slightly higher (about a foot or so on average) than the existing wooden wall. The existing wall would remain in place and would be covered with backfill. A pathway would be constructed along the inland side of the new sheetpile wall. All existing rip-rap materials on the riverside of the existing wood wall (estimated at 500 cubic yards) would be removed and either used for back fill purposes inland of the sheetpile wall and/or removed off site. See exhibit C for proposed sheetpile wall project plans.

The proposed project also includes the following elements:

- Construction would be limited to a 3-month period (between September 15<sup>th</sup> and December 15<sup>th</sup>) to avoid snowy plover breeding and steelhead migration periods.
- Construction areas would be limited to the roughly 40 foot area riverward of the existing wall, with a narrower area of construction footprint adjacent to Watsonville Slough. All construction areas would be restored with native wetland and coastal strand dune species (as applicable) following project completion.
- Construction BMPs are required to minimize and/or eliminate impacts to the Pajaro River and Watsonville Slough, and pre-construction surveys for listed species are required.
- Areas inland of the constructed sheetpile wall between the condominium buildings would be revegetated with native dune species, and cascading plants would be established at the river edge of the sheetpile wall to provide viewshed screening. The sheetpiles themselves would be coated with a sandy beach color epoxy.
- Roughly 2 acres of rivermouth and slough uplands would be deeded to the State in exchange for the area underlying the wall alignment plus the third of an acre underlying the existing revetment seaward



of Pelican Point (roughly a 5:1 ratio in favor of the State).

- The deeded area of Watsonville Slough uplands would be restored.
- A restoration plan for the last mile of Watsonville Slough (from Beach Road to the Pajaro River) would be prepared.
- A feasibility analysis for providing public access from the Pajaro River levee to Beach Road would be prepared.
- \$10,000 would be given to the Point Reyes Bird Observatory to further snowy plover recovery efforts at this location.
- A commitment to long term screening, monitoring, and maintenance of the sheetpile wall structure, and an assumption of all risks for developing in light of the known hazards present at this precarious location, including a prohibition on any future expansion of structures toward the river/slough.

The Applicant's proposed project description is attached as exhibit B.

#### Other Agency Review

The Applicant's proposed project has been reviewed and authorized (where necessary) by the California Department of Fish and Game (CDFG), the United State Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the Regional Water Quality Control Board (RWQCB), the Army Corps of Engineers (ACOE), and Santa Cruz County. ACOE authorized the project on June 5, 2002 based upon their federal consultation with USFWS and NMFS. The ACOE authorization is not effective until the Coastal Commission has authorized the project. Because it was premised on a project commencing in 2002, and because the Applicant elected not to pursue a project in 2002, the ACOE authorization will likely need to be amended following Commission action on this application. The USFWS and NMFS reviews incorporated within the ACOE authorization do not reference any termination date as regards their effectiveness.

CDFG authorized the project on March 20, 2002; this authorization only applies to work in 2002. Again, since the Applicant elected not to pursue a project in 2002, the CDFG authorization will need to be amended. The Santa Cruz County and RWQCB authorizations do not appear to present such amendment issues inasmuch as they do not appear to include any deadlines.

The Monterey Bay National Marine Sanctuary (MBNMS) may require permits as well. To date, none have been obtained.

The majority of the rivermouth property where the project would take place is owned by the California State Lands Commission (SLC). On April 7, 2003, SLC agreed to an arrangement with the Applicant to lease the lands under the proposed sheetpile wall alignment to the Applicant for a year, and to enter into



negotiations to permanently exchange the land for other land of equal or greater value.<sup>2</sup> As of the date of this report, final exchange arrangements have not been finalized, but the Applicant and SLC indicate that the rough parameters of the subsequent exchange would be that approximately 2 acres of Watsonville Slough and Pajaro River lands would be deeded to the State in exchange for that portion of land that would underlying the sheetpile wall plus that portion underlying the existing revetment fronting the Pelican Point portion of the much larger Pajaro Dunes development that is in State ownership (see page 4 of exhibit B for a graphic depicting the exchange areas); the exchange proposed appears on the scale of roughly 5:1. If the exchange parameters have not been resolved within one year, then the lease could be extended; presumably under the same general parameters, although SLC's April action is unclear in this regard.

The land manager of the area in which the majority of the project would take place (the California Department of Parks and Recreation (DPR)) has agreed to the proposed project subject to a series of contingencies that are a part of the Applicant's proposed project.

## C. Coastal Development Permit Determination

### 1. Geologic Conditions and Hazards

Coastal Act Section 30235 addresses the use of shoreline protective devices:

***Section 30235.** Retentions, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

Coastal Act Section 30253 addresses the need to ensure long-term structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future. Section 30253 provides, in applicable part:

***Section 30253.** New development shall:*

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms*

<sup>2</sup> Note that this lease also involved the State-owned lands under the revetment fronting Pelican Point on the seaward side (note that the Pelican Point portion of the revetment is a very small component of the much larger, mile-long, revetment that fronts all of Pajaro Dunes extending upcoast to Palm Beach; it could be considered the "corner" of it). In other words, SLC rented both the land under the existing corner of the revetment and the land under the proposed sheetpile wall to the Applicant for one-year. The one-year rent charged by SLC for the lease was \$58,370 (\$44,190 attributable to the corner of the revetment, and \$14,180 to the sheetpile wall location). In other words, the land under the corner of the revetment was valued at roughly three times that of the land under the proposed wall.



*along bluffs and cliffs.*

Coastal Act Section 30235 acknowledges that seawalls, revetments, retaining walls, groins and other such structural or “hard” methods designed to forestall erosion also alter natural shoreline processes. Accordingly, with the exception of new coastal-dependent uses, Section 30235 limits the construction of shoreline protective works to those required to protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations because shoreline structures have a variety of negative impacts on coastal resources including adverse affects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site.

In this case, an existing timber pile wall already exists at this location. The repair proposed would augment the existing timber pile wall and move the hardened shoreline edge riverward. As such, it proposes an area of coverage in excess of that previously present. In addition, the wall proposed is significantly different, and more substantial, than the existing timber pile wall. So although the project as a whole can be considered a repair of sorts, for analysis purposes it is new armoring that significantly increases the footprint and scale of the existing damaged wall.

Under Coastal Act Section 30235, new armoring may be approved if: (1) there is an existing structure in danger from erosion; (2) shoreline altering construction is required to protect the existing threatened structure; and (3) the required protection is designed to eliminate or mitigate the adverse impacts on shoreline sand supply.

#### A. Existing Structures to be Protected

For the purposes of shoreline protective structures, the Coastal Act distinguishes between development that is allowed shoreline armoring, and development that is not. Under Section 30253, new development is to be designed, sited, and built to allow the natural process of erosion to occur without creating a need for a shoreline protective device. Coastal development permittees for new shorefront development are thus making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. In other words, coastal zone development approved and constructed since the Coastal Act should not require shoreline protection in order to “assure stability and structural integrity” because it was constructed with adequate setbacks and/or other measures in order to negate the need for future armoring.

In contrast, coastal zone development approved and constructed prior to the Coastal Act went into effect was not subject to Section 30253 requirements. Although some local hazard policies may have been in effect prior to the Coastal Act, these pre-Coastal Act structures have not necessarily been built in such a way as to avoid the future need for shoreline protection. Accordingly, Coastal Act 30235 allows for shoreline protection in certain circumstances for these “existing” structures. In other words, permitted development in place prior to the effective date of implementation of the Coastal Act can be protected (if warranted and consistent with Coastal Act policies) because it is “existing” development; existing as permitted development prior to the Coastal Act.



In this case, the proposed project would be designed to protect the inland condominiums that were constructed in the late 1960s and early 1970s, prior to the coastal permitting requirements of both Proposition 20 and the Coastal Act. As such, the inland condominiums qualify as existing structures for the purposes of Section 30235.

#### B. Danger from Erosion

The Coastal Act allows shoreline armoring to protect existing structures in danger from erosion, but it does not define the term “in danger.” There is a certain amount of risk in maintaining development along a California coastline that is actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other geologic hazards. These risks can be exacerbated by such factors as sea level rise and localized geography that can focus storm energy at particular stretches of coastline. As a result, some would say that all development along the immediate California coastline is in a certain amount of “danger.” It is a matter of the degree of threat that distinguishes between danger that represents an ordinary and acceptable risk, and danger that requires shoreline armoring per 30235. Lacking Coastal Act definition, the Commission’s long practice has been to evaluate the immediacy of any threat in order to make determinations as to whether an existing structure is “in danger.” While each case is evaluated based upon its own particular set of facts, the Commission has generally interpreted “in danger” to mean that an existing structure would be unsafe to occupy in the next two or three storm cycles (generally, the next few years) if nothing were to be done (i.e., in the no project alternative).

In this case, the Applicant’s consulting engineers have indicated that the existing wood lagging wall does not extend below the established scour levels for this part of the Pajaro River (i.e., ACOE has designated a scour level of –6 NGVD). Storm and/or river flow events have repeatedly undermined the existing wall and resulted in scour of the sands in which the condominiums are founded. One such winter storm event could breach the wall and undermine the existing condominium structures. As such, the condominiums qualify as an existing structure in danger from erosion for purposes of Section 30235.

#### C. Feasible Protection Alternatives to a Shoreline Structure

The second test of Section 30235 of the Coastal Act that must be met is that the proposal to alter the shoreline must be *required* to protect the existing structures. In other words, under the policies of the Coastal Act, the project must be the least environmentally damaging feasible alternative. Section 21080.5(d)(2)(A) of CEQA likewise prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse effect that the activity may have on the environment. Any action the Coastal Commission may be required to take to continue protecting existing structures at this location must be consistent with this section of CEQA as well as the Coastal Act. Other alternatives typically considered include: the “no project” alternative; abandonment of threatened structures; relocation of the threatened structures; and drainage and vegetation measures.

In this case, the “no project” alternative is not viable because the existing threatened structures would not be protected absent some form of repaired armoring. In addition, the no project alternative does not appear to be the best policy and planning option overall. First, the existing wood and lagging wall and condominium structures pre-date Proposition 20 and Coastal Act permitting requirements, and were thus



not evaluated against the Act's long term stability requirements. In other words, development at this location was installed notwithstanding the fact that it occupies a former sand dune area, that the sandy substrate underneath was – and is – inherently instable, and that it apparently included inadequate measures to guard against such instability. Second, the pre-Proposition 20 and Coastal Act development has established a hardened shoreline edge (both in the proposed project area and along the seaward frontage where the existing revetment lies). Third, if a replacement project was not approved, additional piece-meal armoring efforts meant to retain development at this precarious location are likely to continue unabated in the future (as evidenced by the fact that repairs have taken place and additional armor stones have been placed almost continuously over the years to retain the fill below the Pelican Point condominiums). Fourth, the existing wood lagging wall does not extend below the established scour levels for this part of the Pajaro River and even an in-kind replacement would not protect the inland condominiums. Thus, absent a Statewide planned retreat policy (or some other form of similar legal measures designed to address such pre-Coastal Act development), a project to address original construction deficiencies more comprehensively than the band-aids applied to date, would help to avoid potential future erosion problems and potential substantial armoring at this location in the future.

There are a variety of such projects that could be considered, ranging from “soft” solutions (like aggressive planting to solidify the setback area) to “hard” structural solutions like that proposed. Relocation as an option is infeasible in this case due to the fact that the integral pile construction of the condos means that relocation is actually demolition and rebuild; this option has been estimated to cost roughly 20 to 30 million dollars. Even were the buildings to be relocated, there aren't locations that could be considered “safe” for an extended period of time given the dune environment in which the condominiums are generally located; the relocated structures would themselves likely be threatened in the relatively near term future. Likewise, soft alternatives like vegetating the dunes as opposed to replacing the wall would not work at this location because of the dynamic nature of the river and dune scour, and the unconsolidated nature of the underlying dune sands. Thus, some form of hard armoring is required to protect the existing threatened condos.

In terms of hard armoring, there are also a variety of projects that could be considered. Rip-rap and vertical concrete walls would have a greater footprint than sheetpiles, and couldn't easily be constructed to the depths necessary to retain the inland sands. Thus, in this case, a replacement sheetpile wall project of some type is the most appropriate project to consider to both minimize footprint and to best address (in an engineering sense) the dune environment in which the wall would be founded. Furthermore, as detailed in the habitat findings that follow, the proposed project is also the only feasible alternative that can protect existing threatened structures in this case.

The project, therefore, meets the second test of Section 30235 of the Coastal Act.

#### D. Sand Supply Impacts

The third test of Section 30235 (previously cited) that must be met in order to allow Commission approval is that shoreline structures must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply.



Beach sand material comes to the shoreline from inland areas, carried by rivers and streams; from offshore deposits, carried by waves; and from coastal dunes and bluffs, becoming beach material when the bluffs or dunes lose material due to wave attack, landslides, surface erosion, gullying, et cetera. Coastal dunes are almost entirely beach sand, and wind and wave action often provide an on-going mix and exchange of material between beaches and dunes. Many coastal bluffs are marine terraces – ancient beaches which formed when land and sea levels differed from current conditions. Since the marine terraces were once beaches, much of the material in the terraces is often beach quality sand or cobble, and a valuable contribution to the littoral system when it is added to the beach. While beaches can become marine terraces over geologic time, the normal exchange of material between beaches and bluffs is for bluff erosion to provide beach material. Bluff retreat and erosion is a natural process resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse, saturation of the bluff soil from ground water causing the bluff to slough off and natural bluff deterioration. When the back-beach or bluff is protected by a shoreline protective device, the natural exchange of material either between the beach and dune or from the bluff to the beach will be interrupted and, if the shoreline is eroding, there will be a measurable loss of material to the beach

The subject site is located within the Santa Cruz Littoral Cell. The Santa Cruz Cell is a high volume cell with annual longshore transport estimated between 300,000 and 500,000 cubic yards of beach quality materials annually. The dominant direction of longshore transport in this sand supply system is north north-west to south south-east. Materials in this system have been estimated to come mainly from coastal streams (roughly 75%), with 20% coming from bluffs, and 5% coming from coastal ravines and sand dunes.

Some of the effects of engineered armoring structures on the beach (such as scour, end effects and modification to the beach profile) are temporary or difficult to distinguish from all the other actions which modify the shoreline. Such armoring also has distinct qualitative impacts to the character of the shoreline and visual quality. However, some of the effects that a structure may have on natural shoreline processes can be quantified, including: 1) loss of the beach area on which the structure is located; 2) the long-term loss of beach which will result when the back-beach location is fixed on an eroding shoreline; and 3) the amount of material which would have been supplied to the beach if the back-beach or bluff were to erode naturally.

In this case, the majority of the project area shoreline is already hardened by the existing timber pile wall and rip-rap. The only new area of hardening is that portion of the wall extending back inland along Watsonville Slough. Since this new area of hardening is along the slough (and not the back beach), it does not affect beach loss related to fixing the back beach. Thus, the quantifiable sand supply impact in this case translates into the area of encroachment for that portion of the wall that would be constructed riverward of the existing wall location, plus the amount of sand that would be retained by the new return wall.

### **Encroachment on the Beach**

Shoreline protective devices (such as seawalls, revetments, sheetpile walls, etc.) are all physical structures which occupy space. When a shoreline protective device is placed on a beach area, the



underlying beach area cannot be used as beach. This generally results in a loss of public access, and in this case ESHA, as well as a loss of sand-generating area. The area where the structure is placed will be altered from the time the protective device is constructed, and the extent or area occupied by the device will remain the same over time, until the structure is removed or moved from its initial location. The beach area located beneath a shoreline protective device, referred to as the encroachment area, is the area of the structure's footprint.

Of the 680-foot total length of the new sheetpile wall proposed, approximately 535 feet would require new footprint area into the sandy rivermouth. The remaining 145-foot section includes roughly 65 feet that would be constructed inland of the existing wall, and approximately 80 feet of new wall whose footprint would be above the slough area and near condo building D. Thus, the footprint (for sand supply purposes) is approximately 2,675 square feet (i.e., a roughly 5' by 535' strip). As a result, the proposed project would eliminate a 2,675 square foot section of sand that would otherwise contribute to the local sand supply.<sup>3</sup> To convert the 2,675 square foot loss of sand area into the volume of sand necessary to restore the beach commensurately in cubic yards, coastal engineers use a conversion value representing units of cubic yards per square foot of beach.<sup>4</sup> In this case, the Commission has not been able to establish an actual conversion factor for the Pajaro River vicinity. However, if a 1.0 conversion factor is used (i.e., the low end of the spectrum of values typically assumed by coastal engineers), a conservative estimate of the cubic yard equivalent of 2,675 square feet can be calculated. Using the sand conversion factor of 1.0, the direct loss of sandy river mouth area due to this encroachment translates into a one-time impact of 2,675 cubic yards of sand.

### **Retention of Sand Generating Materials**

The proposed project includes a new portion of wall extending upcoast along the Watsonville Slough. This new portion of wall is roughly 80 feet in length. Although such wall can feasibly be considered a return to correct against end effects based on the scope of the project and the specific circumstances of this case, it would block the transport of sand generating sediments into the shoreline sand supply system. The Applicant's engineer estimates that the proposed return portion of the wall would retain roughly 12 cubic yards of sand per year.

### **Sand Supply Mitigation**

Thus, the total sand supply impact in this case can be estimated to be a one time loss of 2,675 cubic yards

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<sup>3</sup> Note that there are other issues related to this footprint encroachment (such as ESHA and public access issues), but these are discussed in the findings that follow. This discussion here is related to the impacts on shoreline sand supply (as distinguished from related impacts to such coastal resources as ESHA and public access).

<sup>4</sup> This conversion value is based on the regional beach and nearshore profiles, and overall characteristics. When there is not regional data to better quantify this value, it is often assumed to be between 1 and 1.5, the idea being that to build a beach seaward one foot, there must be enough sand to provide a one-foot wedge of sand through the entire region of onshore-offshore transport. If the range of reversible sediment movement is from -30 feet msl to +10 feet msl, then a one-foot beach addition must be added for the full range from -30 to +10 feet, or 40 feet total. This 40-foot by 1 foot square parallelogram could be built with 1.5 cubic yards of sand (40 cubic feet divided by 27 cubic feet per cubic yard). If the range of reversible sediment transport is less than 40 feet, it will take less than 1.5 cubic yards of sand to rebuild one square foot of beach; if the range of reversible sediment transport is larger than 40 feet, it will take more than 1.5 cubic yards of sand to rebuild one square foot of beach.



of sand, plus an additional 12 cubic yards per year. This sand supply impact is relatively insignificant given that the site is located at the extreme end of the littoral cell, and that the Monterey Bay submarine canyon directly offshore the Pajaro acts as the major sand sink in the cell. Indeed, the one time loss of sand is less than 1% of the lower estimate of total longshore sand transport here (300,000 cubic yards), and the annual loss is a minute proportion of this total transport. In addition, the one-time loss of sand here is more of a concern for the loss of beach area permanently sequestered, and thus taken out of the public access resource generally available here. Nonetheless, in order for the proposed project to be found consistent with the third test of Section 30235, sand supply impacts should be eliminated or mitigated. In this case, the Applicant proposes to restore an area on the river mouth side of the wall where the existing timber pile wall would be removed (nearest the intersection of the slough with the river). This would return approximately 852 square feet to rivermouth sand.<sup>5</sup> With this mitigation the sand impact is reduced even further. In addition, because the main concern of the one-time loss of sand is essentially an impact related to public beach access (sandy beach area available), this specific yet small impact is effectively mitigated by the public access component of the project (see below). The project thus satisfies the third test of Section 30235, and is consistent with this Section of the Coastal Act.

#### E. Long Term Structural Stability and Assumption of Risk

Pursuant to Coastal Act Section 30253, development is to be designed, sited, and built to allow for natural shoreline processes to occur without creating a need for additional more substantive armoring. Coastal development permittees for new shorefront development thus are essentially making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, sand supply, ESHA, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. Coastal Act Section 30253 requires that the proposed project assure structural stability without the need for additional armoring. The proposed project would provide stability to an area that is inherently unstable. The Applicant has proposed monitoring and a prohibition on additional armoring.

In addition, the experience of the Commission in evaluating the consistency of proposed developments with Coastal Act policies regarding development in areas subject to problems associated with geologic instability, flood, wave, river, and/or erosion hazard, has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, or other such occurrences. Development in such dynamic environments is susceptible to damage due to such long-term and episodic processes. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) in the millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding placing the economic burden on the people of the State for damages, applicants are regularly required to acknowledge site geologic risks and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed. The Applicant has proposed an assumption of risk.

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<sup>5</sup> This 852 square foot area consists of the roughly 612 square feet that is located between the new wall placement and the existing wall, and the approximately 240 square feet that is located under the rip-rap in this area (originally placed in the late 1960s) as estimated by the Applicant's engineers.



The proposed project is consistent with Coastal Act Section 30253.

#### F. Geologic Conditions and Hazards Conclusion

As discussed above, the facts of this particular case show that the proposed project is required to protect existing structures in danger from erosion and that it is the only feasible alternative to do so in this case. The proposed project has been designed to minimize (to the extent feasible) sand supply impacts, and includes mitigation to address impacts that are unavoidable in this regard. Because of this, section 30235 requires that the Commission approve the proposed project.<sup>6</sup> The Applicant proposes monitoring, long term maintenance, and a prohibition on future riverward encroachment. As conditioned to implement the proposed geologic hazard measures consistent with the Commission's understanding of them, the proposed project can be found consistent with Coastal Act Sections 30235 and 30253 as discussed in this finding.

## 2. Wetland and Other Environmentally Sensitive Habitat Areas (ESHAs)

The Coastal Act is very protective of sensitive resource systems such as wetlands, dunes and other environmentally sensitive habitat areas (ESHAs). The Coastal Act defines environmentally sensitive areas as follows:

**Section 30107.5.** *"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Almost all development within ESHAs is prohibited, and adjacent development must be sited and designed so as to maintain the productivity of such natural systems. In particular, Coastal Act Section 30240 states:

**Section 30240(a).** *Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*

**Section 30240(b).** *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Article 4 of Chapter 3 of the Coastal Act also describes protective policies for the marine environment and specifically calls out wetland resources. Coastal Act Sections 30230 and 30231 provide:

**Section 30230.** *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic*

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<sup>6</sup> This 30235 requirement does not negate other Coastal Act requirements, and indeed the interplay of them with 30235 (see also findings that follow).



*significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

**Section 30231.** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

In addition, Coastal Act Section 30233(a), 30233(c) and 30233(d) specifically address protection of resources like Pajaro River and Watsonville Slough. In particular, Coastal Act Section 30233 limits development in wetlands to a few limited categories where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects:

**Section 30233(a).** *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally*



*sensitive areas.*

*(7) Restoration purposes.*

*(8) Nature study, aquaculture, or similar resource dependent activities.*

**Section 30233(c).** *In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division....*

**Section 30233(d).** *Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

Section 30236 specifically describes the limited uses for which stream alteration is allowed. Section 30236 states:

**Section 30236.** *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

In sum, the Coastal Act requires protection and preservation of significant habitat resources such as exist at the project site. The Act also allows for flood control projects in rivers under certain criteria. Non-resource development within ESHAs is prohibited, only a very limited subset of development is allowed within wetlands (a sheetpile wall is not one of the allowed types of development), and any development authorized must be mindful of the policies protecting the general rivermouth environs and its inhabitants.

#### A. Project Area Coastal Resources

The majority of the project would take place in the Pajaro River rivermouth area, with a smaller portion taking place within Watsonville Slough (where it outlets into the Pajaro). The rivermouth area in question is infrequently and seasonally covered by Pajaro River waters. Typically, a sand spit dune berm is in



place and the Pajaro meanders towards an entry point at the Monterey Bay roughly a quarter-mile downcoast from the project site. A summer lagoon generally forms in this area during the summer months and is generally seasonally breached (both naturally and artificially in the past) in late fall or early winter.

The project area provides known habitat for such listed species as Tidewater goby, Steelhead trout, Snowy plover, Brown pelican, legless lizards, Western pond turtles, Santa Cruz long-toed salamanders, and Monterey spineflower. These species are either federally and/or state-listed as endangered (Brown pelican and long-toed salamander), threatened (goby, steelhead, snowy plover, brown pelican (State), and spineflower), or either a candidate for listing or a species of special concern (pond turtle and legless lizard). The Pajaro River and its associated estuary and lagoon are Federally-designated critical habitat for steelhead. Watsonville Slough is the namesake branch of the larger Watsonville Slough System, previously recognized by the Commission as probably the largest and most significant wetland habitat between Pescadero Marsh (in San Mateo County) to the north and Elkhorn Slough (in Monterey County) to the south. The entire Watsonville Slough System has been designated by CDFG as an "Area of Special Biological Importance." *Zmudowski State Beach*, the rivermouth/dune area within which the project would be installed, is one of 28 critical habitat areas for snowy plover designated along the west coast. The project area is designated by State Parks in the *Zmudowski State Beach* general plan as a Natural Preserve; a designation within which development, other than habitat-related and/or passive recreational development, is essentially prohibited.<sup>7</sup> The protections afforded such preserves are highlighted by the fact that motor vehicles are explicitly disallowed within them.<sup>8</sup> Thus, the proposed project area represents a significant and prolific natural resource providing biologically productive habitats for listed and non-listed plant, aquatic, and land species, including important foraging, roosting, breeding and rearing habitat. Accordingly, the entire project area constitutes ESHA, and a subset constitutes wetlands ESHA, within the meaning of the Coastal Act. See exhibit A for photos of the area.

#### B. Proposed Project Results in Permanent ESHA loss

As proposed, the project would permanently displace a portion of the dune rivermouth area (roughly 2,675 square feet), the majority of which is located within the State Lands owned/DPR managed Natural Preserve area of the *Zmudowski State Beach* unit. In other words, publicly owned, managed, designated, and preserved ESHA would be displaced to allow for a sheetpile wall to be installed for the private

<sup>7</sup> Public Resources Code Section 5019.71 defines such Natural Preserves as follows: "Natural preserves consist of distinct nonmarine areas of outstanding natural or scientific significance established within the boundaries of other state park system units. The purpose of natural preserves shall be to preserve such features as rare or endangered plant and animal species and their supporting ecosystems, representative examples of plant or animal communities existing in California prior to the impact of civilization, geological features illustrative of geological processes, significant fossil occurrences or geological features of cultural or economic interest, or topographic features illustrative of representative or unique biogeographical patterns. Areas set aside as natural preserves shall be of sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit. Habitat manipulation shall be permitted only in those areas found by scientific analysis to require manipulation to preserve the species or associations that constitute the basis for the establishment of the natural preserve."

<sup>8</sup> Public Resources Code Section 5001.8(a)(1) states: "The use of motor vehicles in units of the state park system is subject to the following limitations: (1) In state wildernesses, natural preserves, and cultural preserves, use is prohibited." The California Code of Regulations reiterates as follows: "No person shall drive, operate, leave, place, land, taxi, takeoff or stop a motor vehicle, motorboat or aircraft within the boundaries of a state wilderness or natural preserve." (Reference: California Administrative Code, Title 14, Natural Resources; Division 3 Department of Parks and Recreation; Chapter 2, Section 4351 "State Wilderness or Natural Preserve").



benefit of the inland landowners. The proposed sheetpile wall is not a resource dependent use and thus such permanent development within ESHA is inconsistent with Coastal Act Section 30240.

#### C. Proposed Project Results in Adverse Temporary Wetland and Other ESHA Impacts

In addition to the permanent loss of ESHA, the proposed project would result in temporary negative impacts to surrounding ESHA and beach from the estimated three months of construction. The construction zone would occupy nearly an acre of the rivermouth/slough area. Temporary dewatering of a portion of Watsonville Slough would be required. During the roughly three months of construction activities, the resource values of the affected area would be effectively eliminated. Furthermore, as described above, the site area is part of a fairly remote natural resource area. Three months of construction noise, lights, vibration (from the driving of substantial piles), and overall construction activities and human presence will also be expected to adversely affect listed (e.g., steelhead) and unlisted species and their habitat outside of the construction zone established (and in the surrounding biologically significant Watsonville Slough, Pajaro River, and River Lagoon/Estuary areas). For example, although the literature appears to be sparse on the potential impact of sheetpile driving on salmonids, it appears that the shock waves generated by pile driving can potentially disrupt foraging behavior, delay migratory progress, and disguise the sound of approaching predators (and/or cause the fish to become accustomed to the sound so that they don't hear the approach of a predator). Recent news reports indicate that in some cases, sheetpile driving actually caused popping of the swim bladders of fish in nearby waters.<sup>9</sup> It seems clear, in any case, that any snowy plovers wintering at the mouth of the Pajaro River (up to 40 have been documented wintering in the past),<sup>10</sup> will be displaced due to sheetpile driving.

Furthermore, although the direct construction impacts themselves would be expected to end when the construction activities themselves ended, the effect of such construction in and adjacent to significant ESHA on the short-term productivity of the affected habitat areas could be felt for many years. In other words, the reduced habitat area productivity during the construction period would not be expected to correct itself instantaneously when construction ended, and its effects may linger for some time, affecting habitat values until previous productivity levels have been reestablished. In addition, the amount of time necessary for such a reestablishment of habitat value also represents lost productivity in and of itself (because this time period when the habitat areas might otherwise be thriving would not be available as a foundation for encouraging habitat values here). Thus, not only will there be the construction period direct and indirect affects, but a "hangover" period of reduced habitat productivity as the habitat recovers over time.

Construction of a sheetpile wall is not a resource dependent use, and it is not one of the types of development allowed within a wetland. Construction would also significantly degrade adjacent wetland and ESHA and other marine resources (not part of the construction zone proper). Thus, the proposed project is inconsistent with Coastal Act Sections 30230, 30231, 30233, and 30240.

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<sup>9</sup> San Francisco Chronicle reports on repair work associated with the Benicia-Martinez Bridge, and Commission staff personal communication with Becky Ota, CDFG. Unlike the proposed project, however, the pile driving in the Benicia-Martinez Bridge project occurred directly in the water. In the Pelican Point case, the intervening sand would be expected to attenuate such impacts somewhat, but the degree to which they would be lessened is unclear.

<sup>10</sup> Commission staff personal communication with Carleton Eyster from the Point Reyes Bird Observatory (PRBO).



#### D. Evaluation of Alternatives to the Proposed Project

As discussed in the preceding finding, a hard structure is required in this case, and a sheetpile wall is the most appropriate hard structure to consider given the site conditions and resources, and if the goal is to minimize impacts on coastal resources. Thus, alternatives to the proposed project in this case are limited to alternative alignments that might better respond to site constraints. In particular, to be found consistent with the wetland and ESHA policies of the Act, wetland and ESHA would need to be avoided.

Following exhaustive analysis, the only possible alternative alignment to the proposed project alignment that can be considered is an alignment that could be constructed inland of the existing wall. An evaluation of this alternative, as well as comparison of impacts between it and the proposed project as relevant, follows. As detailed in the findings that follow, the proposed project is the only feasible alternative in this case.

#### **Construction Issues**

Construction of a replacement wall project in this location is made difficult by: (1) the need to limit the duration of construction to the degree practicable to avoid impacts on habitat; (2) subsurface obstructions to driving piles (including existing rip-rap and piles); and (3) the lack of space between the condominium structures and the existing timber pile wall.

First, the Applicant is limited to a 3 month construction window (between September 15<sup>th</sup> and December 15<sup>th</sup>) to avoid impacts to snowy plover and steelhead. This is the time period within which the Applicant has indicated that all construction would be confined, and this is the time period recommended by CDFG, NMFS, and USFWS.<sup>11</sup>

Second, the existing wood lagging wall is surrounded (inland, riverward, and likely below the pilings themselves) with rip-rap.<sup>12</sup> Although the rip-rap was placed in specific locations, and may have been retained to some degree in the upper sand horizon nearest to the top of the existing wall (where the existing wood lagging exists), the rip-rap is also likely to have migrated to some degree underground between and below the existing piles in the soft sand slurry (due to the fact that the whole area is a sand dune) creating a rip-rap “minefield” of sorts in the overall project area. Any location where piles must be driven must be first cleared of obstructions, including rip-rap and piles. Although a massive engineering project might be able to excavate all such subsurface obstructions to the depth necessary (i.e., up to 65 feet below existing grade, or roughly -53 feet NGVD), this would take a considerable amount of time and would require substantial shoring (or more likely relocation) of the condos. It is not clear that either the piles or the rip-rap can be cleared completely.

Third, the existing condominium units are, in two locations, located within about 7 feet of the existing wooden wall. Nearest to condo building c, this distance is reduced to 5 feet or less by the fact that the

<sup>11</sup> The September 15th through December 15th window was established through the CEQA and agency review process, and is based upon CDFG’s stream alteration agreement (September 4 through December 20), and the USFWS and NMFS consultations (that describe a mid-September to mid-December construction period). The Applicant has proposed to limit all construction to within this time frame.

<sup>12</sup> As described earlier, the Commission has been unable to locate CDPs authorizing the placement of rip-rap in these areas. See “Alleged Violation” finding below.



existing piles have rotated towards the river and their base is thus nearer to the condo buildings than their exposed top. Because of the depth to which the piles would be driven, and the exacting tolerances for ensuring that the interlocking sheetpiles interlock at that depth, a specialized construction jig must be used to position the piles when they are driven. The jig measures 42 feet by 12 feet and the I-beams are driven roughly in the middle of the jig (i.e., at 6 foot on center). At buildings B and C, even if all the obstructions can be removed, there is not adequate space within which to drive the piles.

Thus options for constructing a replacement wall are made difficult and costly for several reasons: because the condominium units were constructed on a sand spit; because the condominium units were only set back 7 feet from the property line (and from the Pajaro River proper); because the condominium units are located within 5 feet (or less) of the existing timber pile wall; and because the Applicant has placed large amounts of rip-rap, apparently without obtaining coastal development permits, rip-rap that may have migrated through the project area. Since king piles and sheetpiles cannot be driven through rip-rap or timber piles, all existing rip-rap and timber piles must first be removed from any replacement wall alignment. It is not clear whether all the rip-rap and piles can be removed in any particular location along the wall due to the depth of the rip-rap and the deteriorated nature of the piles. In any location where subsurface development is encountered that cannot be removed, the wall alignment must be shifted to avoid such development. All construction activities must be confined within the 3-month window; if construction is not complete at the end of one such window, it would not be able to recommence until the next window of time (i.e., the following year).

For the proposed project, subsurface obstructions would be limited to the rip-rap along the exterior of the wall (estimated by the Applicant as approximately 500 cubic yards of rock) and one point where the new wall alignment would cross the old nearest the intersection of the slough and the river. The existing wall would act as a coffer dam of sorts while any rip-rap was removed on the river side. For the inland alternative, the rip-rap and pile wall would both need to be removed before pile driving could commence in that location. While the removal of rip-rap and piles would be difficult and raise construction issues in either case, this would be more of an issue with the inland alternative. It would be relatively more difficult (and time-consuming) to remove all of the existing piles and rip-rap (a total in the project area estimated to be approximately 1,500 cubic yards), and would require significant shoring of the condo structures themselves during this time frame; there would be relatively more construction uncertainty where the removal of piles and rip-rap are involved.

Based upon the construction duration estimates provided by the Applicant's consulting engineers, it seems reasonable to assume that the proposed project could be constructed within one 3-month construction season, while the inland alternative project would likely take 2 construction seasons. However, these estimates are fraught with uncertainty for several reasons: the dynamics of construction in a constantly changing river/slough environment; the uncertainty of late fall/early winter weather and storm events; the types of measures that may be necessary to protect the existing condos during construction; the difficulty in locating and avoiding and/or removing existing rip-rap and piles in any particular wall alignment; and, of course, the interaction and interplay of each of these. The degree to which this issues will affect construction will not be entirely clear until construction is underway.



### **Permanent ESHA Impacts**

The proposed project would occupy roughly 2,675 square feet of dune rivermouth ESHA (i.e., a 5' by 535' strip where the wall would be constructed riverward of the existing timber pile wall). Because of construction difficulties (as detailed above) the inland alternative would occupy roughly 750 square feet of dune rivermouth ESHA (i.e., approximately 150 linear feet of the wall would need to be constructed on the river side of the existing wall location nearest to condominium units B and C). Therefore, neither alternative can avoid permanent ESHA coverage. Therefore, neither alternative is consistent with Coastal Act Section 30240.

### **Temporary Wetland and Other ESHA Impacts**

Both alternatives would need to be constructed in a similar manner from the river/slough side of the wall because of the location of the existing condo buildings. Both alternatives would be expected to have the same type of temporary impacts discussed above. The inland alignment would be expected to take longer, roughly double the time, and thus temporary wetland and other ESHA impacts would be more in that scenario. Therefore, neither alternative can avoid wetland and other ESHA impacts. Therefore, neither alternative is consistent with Coastal Act Sections 30230, 30231, 30233, and 30240.

### **Conclusion**

Neither the proposed project or an alternative alignment partially inland of the existing timber pile wall alignment project can avoid wetland and ESHA impacts. Therefore, neither alternative is consistent with Coastal Act Sections 30230, 30231, 30233, and 30240.

Furthermore, although the inland alignment would be feasible in a strictly engineering sense, it is not feasible as that term is understood in a Coastal Act context.<sup>13</sup> The construction impacts on ESHA would be roughly double that of the proposed project. It is possible that were such an alignment to be pursued, construction conditions could dictate an even more riverward alignment, or an even longer duration due to subsurface obstructions nearest the condos. Given the increased level of construction uncertainty associated with the inland alignment, such impacts could even grow in magnitude. In other words, feasibility cannot be assured for the inland alignment. It would also cost roughly double the proposed project (estimated at \$4 million versus \$2 million),<sup>14</sup> and seismic protection would be slightly decreased

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<sup>13</sup> Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

<sup>14</sup> It should be noted that the majority of the cost increase can be directly attributed to construction difficulties due to the presence of unpermitted rock, which alone adds easily one-quarter to one-half of a million dollars to the cost estimates for the inland alternative. Such additional cost is more appropriately allocated to the cost to remove unpermitted development, as opposed to allocating it to the current project proposed and/or the approvable alternative. Similarly, the estimated \$1.2 million that would be required to stabilize the condo buildings in order that the unpermitted rock could then be removed can likewise be attributed to the presence of the unpermitted rock. Such condo stabilization measures also have an independent utility (that can be differentiated from both the rock removal and the sheetpile wall projects) inasmuch as the additional stability that would be gained in any case due to such measures would be a benefit to the Applicant (through an expected longer structural life for the stabilized buildings, higher re-sale values as a result, etc.) regardless of the other parts of the project. Thus most all of the additional cost attributed to inland alignment alternative either provides additional structural benefits to the Applicant over and above that proposed and/or corrects Coastal Act permitting violations. As such, it is reasonable that some component of these additional costs be absorbed by the Applicant outside of the context of the current project comparison.



because the existing whaler beam connections to the dead man piles would be severed.<sup>15</sup>

#### E. ESHA Conclusion

Therefore, the only Coastal Act feasible project to protect the existing structures in danger from erosion is the proposed project. The proposed project does not, however, avoid ESHA as directed by the Act. However, although the project is inconsistent with the general resource protection policies of Coastal Act sections 30230, 30231, 30233, and 30240, the more specific policy of Coastal Act section 30235, which requires that the Commission approve this project, overrides in this case, where there are no other feasible alternatives to protect the existing development that would avoid ESHA. Thus, the project must be approved under section 30235 notwithstanding the requirements of section 30240.

In that case, the unavoidable ESHA impacts must be mitigated. Towards this end, the Applicant has proposed a series of compensatory mitigation measures for the project's ESHA impacts. As previously noted in the geologic hazard finding preceding, the Applicant's mitigation package includes: restoration of the construction area following construction; restoration of approximately 2 acres of Watsonville Slough uplands at the mouth of the slough (see exhibit E); restoration the dune area inland of the new wall in and around the condominiums; funding for the long-term management of all restored areas; \$10,000 to PRBO to further their plover recovery efforts in the immediate vicinity; preparation of a public access feasibility analysis to include ESHA interpretation; limiting absolute construction duration by implementing a 7-day work week; and preparation of a restoration plan for the last mile of Watsonville Slough from Beach Road to the Pajaro River consistent with the recently completed Watsonville Slough System Enhancement Plan (see exhibit B for the Applicant's proposed mitigation package). These mitigation measures are significant and would result in the a long-term improvement to habitat in the immediate project area and along Watsonville Slough. Because of this mitigation, and as conditioned to implement the proposed ESHA mitigation measures consistent with the Commission's understanding of them, and because the proposed project is the only feasible project (as discussed above), the project is consistent with Coastal Act Section 30236.

### 3. Public Access and Recreation

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. This includes protecting public visual access as well. In particular:

<sup>15</sup> Note that this change in seismic protection would be relatively small and insignificant in the larger context of general stability issues at the site. Furthermore, any such small seismic protection reduction could likely be offset by the increased stability that would be provided by the improvements to the building foundations (and that might be necessary if the unpermitted rock in the project area was to be completely removed). Finally, any improvement in seismic protection must also be put into the context of the project location and the overall liquefaction threat that exists now in this location and that will continue to exist with any of the shoreline protection systems that are being considered. None of the projects considered, not even the Applicant's proposed project, are designed to prevent damage due to seismic events. In fact, the proposed wall is specifically not meant to function for seismic protection, nor was the existing wood lagging wall. As the Applicant's consulting engineer states, "the primary purpose of the riverwall is to prevent erosion of the referenced site from the Pajaro River flood waters, not to support the condominium buildings. The existing condominium buildings are supported on piles independent of the riverwall." In fact, the Applicant's engineer indicates that to protect the Pelican Point condominiums from seismic factors, the entire development would need to be surrounded by a continuous, deep-rooted containment wall cross-tied together; an enormous project multiple degrees of magnitude larger (in terms of its footprint, impacts, and overall costs) than that proposed. The Applicant specifically directed the consulting engineering team that the proposed project not be designed for seismic conditions.



**30210.** *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

**30211.** *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

**30212(a):** *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,(2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

**30213.** *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ...*

**30221.** *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

**30223.** *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section 30240(b) also protects parks and recreation areas. Section 30240(b) states:

**30240(b).** *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

#### A. Public access and recreation background

When dry, the project area sand dune (that is sometimes inundated with wave wash and/or river waters) provides for low intensity recreational public access to the general rivermouth environs. Because the intervening Pajaro Dunes/Pelican Point development blocks public access to the mile of shoreline upcoast of this site (with the primary vertical access provided at the Palm Beach unit of State Parks just north of the Pajaro Dunes revetment and its related inland development), and because of the natural river and slough barriers to easy (dry) access, public access to this area is limited by its relative isolation. Given the sand-swept and remote nature of this portion of *Zmudowski State Beach*, and given the significant resource values here, such low intensity level of recreational access is probably appropriate. That said, these same factors that limit access make this an especially good example of a high resource value area,



appropriate for low intensity public access. Remaining opportunities for interpretive access such as this, in reach of more urbanized/populated areas are relatively few, and public access to areas like the Pajaro Rivermouth should be maximized consistent with its carrying capacity for such use.

#### B. Public access and recreation loss

In terms of public access and recreation, the project as proposed would permanently remove an approximately 2,675 square foot area of *Zmudowski State Beach* to replace it with private development. Although the immediate area lost provides limited access in and of itself, the overall area available for public access in the State Park would be reduced in size.<sup>16</sup> As discussed above, a primary reason this resource area is conducive to providing public access is its windswept remoteness; a quality that is enhanced by the overall size of the area in question. Public access would also be displaced from the roughly one acre construction area for the 3 month construction period. The loss of this public access and recreation area is inconsistent with Coastal Act Sections 30210, 30211, 30213, 30221, 30223, and 30240(b).

#### C. Inadequate public access

In addition, as described above, the public access point to the affected stretch of beach is limited to the Palm Beach State Park unit access roughly one mile upcoast of the proposed project site (see exhibit A). Palm Beach is located at the terminus of Beach Drive where it meets the shoreline, and fronts the private entrance to the Pajaro Dunes/Pelican Point residential development. This private entrance is occupied by a series of electronic gates, private property signs, and a guard house that block and prohibit the general public from access along the coast towards the Pajaro River. Because the intervening Pajaro Dunes/Pelican Point development is located along the former sand spit located between Watsonville Slough, the Pajaro River and the Monterey Bay, public access to the project site area is made by accessing the sandy beach at Palm Beach, and navigating downcoast along the narrow beach occupied in large measure by the existing mile-long revetment fronting Pajaro Dunes/Pelican Point; public access along the beach is oftentimes blocked when Bay tides begin to lap against the rip-rap boulders.<sup>17</sup> Pajaro Dunes/Pelican Point residents may access the beach by a series of stairways built atop and over the ocean-fronting revetment providing direct private access for them.<sup>18</sup> Likewise, although several access points exist along the existing wooden wall fronting the Pelican Point condos providing access to the subject sandy rivermouth area in question, the general public is prohibited from both entering the Pajaro Dunes/Pelican Point development at the Beach Road entrance and making use of the developed road and parking areas therein, and prohibited from using the access points themselves. Public access exists along the Pajaro River levee, but users are forced to backtrack upon reaching the end of the levee (directly

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<sup>16</sup> Note that DPR has agreed to giving up this land provided the an exchange is accomplished between the Applicant and SLC, as has been proposed by the Applicant and conceptually agreed to by SLC.

<sup>17</sup> The revetment occupies State Lands under a lease arrangement with the State Lands Commission. State Lands indicates that it is currently reviewing the lease for an expected extension of its term.

<sup>18</sup> Although constructed atop State Lands, these stairways are posted with private property signs at their base that prohibit the public from using them. At current time, it is not clear to what extent such 'keep out' signs have been sanctioned within State Lands; this is particularly relevant given that these stairways often provide the only safe sanctuary when the Bay reaches the rip-rap. Any new lease arrangement will clearly need to address the appropriateness of maintaining stairways for private use only within State Lands.



inland of the slough from Pelican Point) in order to continue traveling upcoast on the Coastal Trail.

The project is inconsistent with Coastal Act Section 30212.

#### D. Public access mitigation

The Applicant has agreed in concept to an exchange of lands with the State whereby the land located under the wall would be exchanged for lands at the intersection of Watsonville Slough with the Pajaro River, as well as slough uplands. Realistically, the only portion of the land exchange (that would go to SLC) that would provide a public access function is the sandy area immediately east of condo building D; this area is roughly 4,500 square feet (see triangular land area shown in exhibit C). The value of this exchange (in a public access sense) is limited because the area held in fee title by the Applicant is already a de facto part of the existing natural resource and access area, and it cannot be distinguished from the surrounding beach/slough areas. In other words, deeding fee title helps in perfecting a public fee-title legal ownership of the resource area in question, but does little to offset the permanent loss of dune/slough real estate associated with the proposed structure. Moreover, given its characteristics and location, it appears likely that the area in question is already public trust and became State lands when California became a state (i.e., because it likely was part of the river/slough at that time as well).<sup>19</sup> This access mitigation is appropriate, but it is not roughly proportional to the access impact and thus additional mitigation is necessary.

As detailed in the preceding findings, the Applicant has proposed to mitigate for public access impacts by also funding the preparation of a feasibility analysis to evaluate where and how to provide public access from the Pajaro River levee through to Beach Road (see exhibit B for the Applicant's proposed mitigation package). Although the feasibility analysis wouldn't necessarily provide for public access, it would identify the legal and physical steps necessary to provide access. Given the historic lack in access, and the significant gap in the Coastal Trail at this location, such a feasibility analysis would be a significant public access mitigation. Further, given the significant resources, the trail has enormous potential for accommodating interpretive access consistent with avoiding disruption to habitat areas. Interpretation would be a value added component of a trail in this location. Also, a significant impediment to public access in this area has been the general opposition of underlying landowners to allowing public access; significantly, the Applicant has elicited the support of the adjacent agricultural landowner in the preparation of the access feasibility analysis.

#### E. Public access and recreation conclusion

The proposed project would result in the loss of an area heretofore used for public access, and does not directly propose new access as directed by the Act. However, based on the access mitigation package proposed, and the fact that the State Lands Commission and State Parks (i.e., the underlying land owner and land manager for the land on which the majority of the project would take place) have consented to the project, the project's public access impacts have been proportionately mitigated in this case. Therefore, and as conditioned to implement the proposed public access mitigation measures consistent with the

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<sup>19</sup> A formal State Lands Commission determination on this point has not yet occurred, although SLC indicates that such issues are being researched to be resolved prior to any exchange taking place.



Commission's understanding of them, the proposed project can be found consistent with the Coastal Act access and recreation policies discussed in this finding.

#### 4. Scenic Resources

Coastal Act Section 30251 details specific public viewshed protections. Section 30251 states:

***30251.** The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Similarly, Coastal Act Section 30240(b) also protects parks and recreation areas significant visual degradation. Section 30240(b) states:

***30240(b).** Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Partly because of its remote nature, and partly because the general lack of surrounding development (with the obvious exception of the Pajaro Dunes/Pelican Point development), the project area represents a significant public viewshed.

In terms of permanent public viewshed impacts, the proposed project would be slightly taller (above grade) than the existing wood lagging wall. It would also replace the existing wood lagging facade of the existing wall with a metal wall composed of panels with rigid and uniform angles. Although the existing wooden pile wall with a large concrete whaler beam at its crest is hardly "natural," the aged wooden materials are more sensitive to the beach area public viewshed aesthetic than would be the metal wall proposed. Due to the change in materials in tandem with the increased mass in the viewshed, the public viewshed would be negatively impacted by the wall proposed. The Applicant proposes to offset the impacts from the metal wall proposed by colorizing the wall a sandy color to match the beach, by replanting dune strand and wetland plants (as appropriate) in the construction area fronting the wall, and by installing planter boxes along the inland side of the wall to allow for cascading vegetation to camouflage the wall as seen from *Zmudowski State Beach* for the life of the wall.

In addition to permanent impacts, there are also the temporary visual impacts during the 3-month construction window. Scenic resources and viewshed would be degraded until such time as the construction were to cease. The Applicant has proposed to limit the absolute construction duration by implementing a 7-day work week, thus minimizing this effect. In terms of compensatory mitigation, the



Applicant has agreed to restore the area in and around the condos with native dune vegetation, in addition to the area of upland slough that would likewise be restored, and the plan for restoration of the last mile of the slough (as previously discussed). Separate from the habitat benefits of the restoration, the restoration area will enhance the public viewshed above what exists today.

As conditioned to implement these proposed visual mitigations consistent with the Commission's understanding of them, the project as proposed is consistent with Coastal Act Sections 30251 and 30240(b) in terms of visual resources.

## 5. Coastal Act Consistency Conclusion

The proposed project is the only feasible alternative to protect existing endangered structures. The proposed project does not, however, avoid ESHA as directed by the Act. However, although the project is inconsistent with the general resource protection policies of Coastal Act sections 30230, 30231, 30233, and 30240, the more specific policy of Coastal Act section 30235, which requires that the Commission approve this project, overrides in this case, where there are no other feasible alternatives to protect the existing development that would avoid ESHA. Thus, the project must be approved under section 30235 notwithstanding the requirements of section 30240.

That said, any unavoidable impacts due the proposed project must be mitigated. On balance and based on the mitigation package proposed by the Applicant (as implemented by special condition), the proposed project is the most Coastal Act consistent feasible project that can be expected in this case. Although not optimum for ESHA, the difficult site conditions and the pre-Coastal Act development at this location conspire to severely limit project options in this case; all options are further clouded by potential construction difficulties whose ramifications won't be completely understood until construction begins. The feasibility of the all-inland alternative is ultimately too uncertain to commit the project to this alignment, and to potentially result in increased construction duration and ESHA impacts within an environment that shouldn't be subjected to this type of development a day longer than necessary.

## 6. Alleged Violation

The existing wooden pier and lagging wall at the project location was installed prior to the coastal permitting requirements of Proposition 20 and the Coastal Act. The Applicant indicates that a small amount of rip-rap was placed along the full linear extent of the inland side of the existing wooden wall, and along roughly 100 feet of the "headland" of the wall along Watsonville Slough when the wall was initially constructed. Since that time, the existing wall has been damaged repeatedly due to river/wave scour and due to the 1989 Loma Prieta earthquake. The Applicant indicates that additional rip-rap and sandbags (roughly 1,300 additional cubic yards) have been placed on multiple occasions, including at least five times since 1982, on both the river and inland sides of the wall in response to such events (see the Applicant's estimates of rock/sand bag locations in exhibit D). The Commission has been unable to locate coastal development permits authorizing such placement and has opened a violation case file (V-3-02-026) and is investigating the alleged violation. In addition to the rock placed, a concrete whaler beam was installed following the Loma Prieta earthquake, with the original tie backs attached to the whaler beam and repaired as necessary, under emergency permit 3-91-028-G; this temporary emergency work



was never recognized by the required follow-up CDP.

The proposed project, and the approvable alternative, have been evaluated based upon acknowledged existence of the rip-rap in the project area, and of the concrete whaler beam installed under emergency authorization in 1991. In fact, the approvable project alternative was shaped in part by the need to address rip-rap concentration areas near the existing condominium buildings that would preclude sheetpile driving if not properly removed, and partly by the dimensions of the concrete whaler that dictate the location of any wall alternative on the river side of the existing wall. Although this application has been considered based upon the policies of Chapter 3 of the Coastal Act, consideration of this application does not constitute an admission as to the legality of any development undertaken on the subject site without benefit of a coastal development permit and shall be without prejudice to the California Coastal Commission's ability to pursue any legal remedy available under Chapter 9 of the Coastal Act.

## 7. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Pajaro Dunes Geological Hazards Abatement District certified a mitigated negative declaration supplemented by additional alternatives and impact analysis per CEQA. The CEQA mitigation measures identified in the certified negative declaration are included as part of the proposed project description.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested modifications and alternatives to the project as proposed to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

